

TWIN CITY LINES

Summer 2018





Top left: The first Seashore restoration had begun when this photo was taken. 1267 still has its front exit door and modified front bumper, installed in 1928. The trolley pole is turned around for backing, since this was before the loop was installed at the far end of the line.



Bottom left: Although it appears to be backdated to its original appearance, 1267 today is a mix of different periods. The enclosed motorman's compartment, gold leaf striping and numbers and the wide front bumper are as-built in 1907. The TCRT 9RB (roller bearing) trucks, triple stream rear gates and internal seat configuration date from 1928. Doug Anderson photos.

**Twin City Lines is published
quarterly by the
Minnesota Streetcar Museum**

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Vol. 12 No. 3

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Twin City Lines is published quarterly and is mailed to members in good standing without charge under Third Class postal permit.

The Minnesota Streetcar Museum operates the Como-Harriet Streetcar Line in Minneapolis and the Excelsior Streetcar Line in Excelsior. Its mission is to preserve Minnesota's electric railway heritage.

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My love affair with 1267

-Doug Anderson

The first train ride I remember, at age 7, was powered by 600V DC. The locomotive was a former Puget Sound Electric cab-on-flat "locomotive" pulling a former Oregon Electric combine on the railway that the City of Seattle built into the North Cascades Wilderness Area to haul supplies to a hydroelectric project on the Skagit River.

My father was an avid fisherman, and he hoped I would become the same. Instead, I found trains much more interesting.

Fast forward to 1951. My folks sent me on the Great Northern Empire Builder to visit my grandpa, Ole, in Minneapolis. I still remember coming up to Hennepin Avenue from the depths of the Great Northern station to see ... railroad tracks in the streets and lots of yellow streetcars traveling on them. They were the first streetcars I had ever seen.

Well, it turns out that grandpa Ole had been a TCRT motorman from 1915 until retirement in 1947 but he still had a pass, and he and I rode all over the city to see the sights. I still remember my surprise and delight when we left city streets and starting speeding through the woods on our way to Hopkins one day. The view out the front window was exhilarating. I loved it!

Again moving forward, I discovered Ira Swett's Interurban Newsletters and Specials sometime in the 1950s and bought his Special 14 describing the street railways of Minneapolis and St. Paul. I was smitten by a photograph of one of the high-speed cars, with a cow-

catcher and a motorman's door. I thought it was absolutely beautiful. Ole had told me how he enjoyed running such cars to Excelsior, Tonka Bay, and Deephaven.

Fast forward again...this time to 1970 when on my first visit to the Seashore Trolley Museum, I discovered they had a Minneapolis streetcar. I started volunteering in the Seashore shop in 1971 and during each year's visit, I would operate 1267 on the Seashore mainline. Unfortunately, there was no turning loop at the outer end of the line at the time so I had to back up in one direction, and 1267 did not have a backup controller.

Even though 1267 ran well, it looked pretty shabby, and I dreamed about making her look beautiful again.

My chance came in 1987 when I learned that my company, IBM, would match my monetary donations 2-for-1, so I made a six-year commitment to: 1) put a concrete floor in the shop; 2) restore 1267; and 3) extend the mainline to a loop at the outer end. As a memorial to my grandfather, I decided to restore the car to its appearance in the year he hired out with TCRT, 1915.

This first restoration was completed in 1994, and the loop at Talbott Park was dedicated in 1995. I was given the privilege of operating 1267 on its first mainline trip where it could go forward in both directions!

Fast forward again ... to 2010. Due to Maine weather (hot and humid in summer; biting cold in winter) and other factors, 1267 had lost some of its luster from 1994, and we embarked on a second restoration which was mostly finished by 2016. I just returned from

my annual trip to Seashore and was able to run a few trips with 1267, which still runs great after 110 years! We (Donald Curry and I) hope that this restoration is our last.

Seashore's car sponsorship program seems to me to be rather informal. Somebody simply offers to spend some money on a car, and thus becomes its "sponsor." In the case of 1267, I made a \$5000 per year pledge for six years, matched each year with \$10,000 from my employer, IBM. I specified that the money should be used for three things:

- 1) concrete floor in the shop,
- 2) restore 1267 to its appearance in 1915, the year my grandfather started his career as a motorman, and
- 3) extend the mainline to an outer loop so that single-end cars could turn at both ends of the line.

The sponsor usually provides quite a bit of the labor for a restoration.

In the case of 1267's first restoration (1987-1994), a restoration technician was hired to do most of the work but I contributed labor during my annual two-week, summertime visit.

The first restoration involved:

- rebuilding the rear platform and bonnet
- removing the front exit and installing a motorman's door
- center the front bulkhead opening and install a sliding door
- new siding all around, painted with DuPont Imron
- add striping
- new (quite a few) and restored window sash
- reconditioned motors
- new headlight to simulate the appearance of an arc headlight
- new roof canvas.

Front cover: Only two of the TCRT standard wood cars survived completely intact--our 1300 and 1267, preserved at the Seashore Trolley Museum. MSM member Doug Anderson has been 1267's sponsor through two restorations. The car is in beautiful shape, seen on the museum's visitor center loop. Doug Anderson photo.

Odyssey of a Streetcar - The Travels of 1267



J. W. Shannon

IN SERVICE. During the first half of 1953, 1267 ran on the Inter-Campus Line of former owner Twin City Rapid Transit Co. The car is here seen at The University of Minnesota Agricultural Campus in St. Paul.



Twin City Lines

LAST RIDE. Following the presentation ceremony (see cover), Messert, Owsanna and Bergen climb aboard as the car is driven onto the flatcar by TCRT Motorman and Seashore Member Edwin H. Nelson.



D. T. Bergen

ON THE ROCK ISLAND LINE. Photographed at speed south of Albert Lea, Minn., June 15, 1953.



T. F. Santarelli de B.

UNLOADING. Seashore Crew prepares to remove the trolley from the flatcar on which it came 1500 miles. Scene is at Kennebunk Station, June 27, 1953.



G. H. Cummings

HOME AT LAST. Body of 1267 awaits its trucks at the entrance to Seashore property. Structure in rear is the garage, shown in the condition in which it was acquired.



T. F. Santarelli de B.

MAINE'S ONLY OPERATING STREETCAR. Unsuccessful efforts to operate some of our other cars indicate that a lot of work must be done before 1267 has to share this distinction. Note cable used to feed power in absence of overhead.

For the second restoration (2010-2016), volunteers did most of the work, including myself for three weeks each summer since IBM's match for retirees is 50% rather than the 2-for-1 that was effective for the first restoration.

The second restoration involved:

- replace rotted sections of belt rail

- new siding on both sides but not front and back, painted with Awlgrip

- add striping
- new (just a couple) and restored window sash

- restored window screens
- roof canvas repainted
- rebuilding the gate-opening mechanism

Plus LOTS of little things for both restorations.

The history of 1267

Car 1267 was one of the last series of cars manufactured at 31st Street Shops in 1907. Built with 40 horsepower motors, it was also one of the last of what TCRT called "slow" cars. Subsequent cars, including 1300, were built with 50 hp motors and were called "fast" cars. When possible, slow cars were assigned to the lighter lines.

Until 1928, 1267 was based at Nicollet Station. That year, it was one of the last group rebuilt with front exit doors, the process having started with the newest cars in 1920. In the process it received new roller bearing trucks with 50 hp motors and electric heaters, and was assigned to East Side Station.

It was transferred to Lake Street Station in 1934, but returned to East Side in 1942.

1267 became well known among

trolley fans after being assigned to the Inter-Campus line in 1948, along with sisters 1266-1271. The Inter-Campus cars were the last in the system to be equipped with fare registers, which had been removed elsewhere in the 1930s. The line also used conductors until the very end in 1954. Elsewhere, conductors were limited to a few rush hour trippers and last appeared in January 1954.

With the end in sight, 1267 was donated to the Seashore Trolley Museum in June 1953.

MSM's TCRT car assignments

Having just given the assignment history of car 1267, how about 1239, 1300, 265 and 322, the other TCRT streetcars in our museum fleet?

TCRT had six stations (carbarns). In Minneapolis were:

North Side on Washington Avenue at 24th Avenue N.

East Side on 1st Avenue NE at University Avenue

Nicollet on Nicollet Avenue at 31st Street

Lake Street on Lake Street at 21st Avenue

In St. Paul were:

Snelling at Snelling Avenue and University Avenue

Duluth at Duluth Avenue and East 7th Street

We know where the cars were assigned thanks to Ed Nelson's incredibly detailed car assignment history, taken from TCRT records dating back to 1909.

This page from the Seashore Trolley Museum 1953 annual report captures 1267's last days in service and its trip to Maine. Doug Anderson collection.

Car 1239

Built in 1907 at 31st Street Shops, 1239 stayed at 31st Street Station. The car barn was rebuilt in 1912 as Nicollet Station and 1239 remained there until it was rebuilt for 1-man/2-man operation in 1935. After rebuilding it was assigned to Snelling Station. In 1939 it was transferred to Duluth Station, where it was assigned to the Mahtomedi line. Mahtomedi quit in 1951 and Duluth Station closed in 1952. 1239 was transferred to Lake Street Station until it was retired in 1953.

Car 1300

1300 was built at Snelling Shops in 1908 and based to Snelling Station. It was assigned to the Interurban on University Avenue, today's Green Line LRT. From 1920 to 1928, TCRT rebuilt over 500 streetcars with front exits, starting with the newest cars and working backward. While other streetcars were sidelined for rebuilding, non-rebuilt cars were moved around to fill the holes. Car 1300 moved to Lake Street Station in 1920, back to



MSM's streetcars in service:

Above: Car 1239 at the Ford Plant loop. Don Ross photo.

Below left: Car 1300 wyes out at Como and Eustis after the St. Paul end portion of the Como-Harriet line was abandoned in 1953.

Below right: We have no photos of it as TCRT 1791, but here is 265 after a fender bender in Duluth.



Snelling a year later and ended 1921 at Duluth Station.

1300's turn came in 1928. This included new roller bearing trucks, electric heat and triple-stream rear gates (the originals were double stream). It stayed at Duluth until it became part of the first group to be rebuilt for 1-man/2-man operation in 1931. That rebuilding program, which continued through 1937, led to another

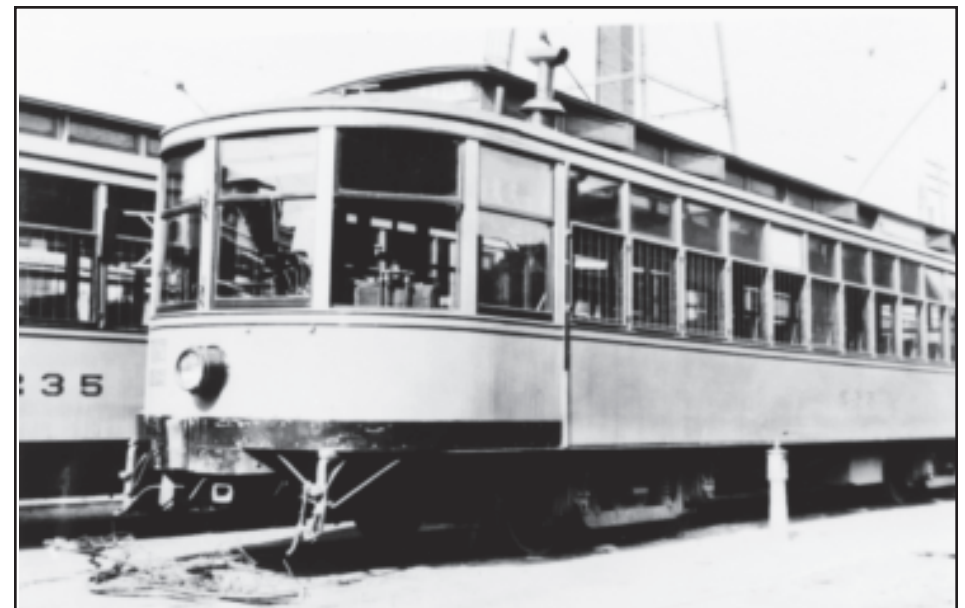
car shuffle. 1300 went to Lake Street Station in 1932, to Snelling Station in 1934 and later that same year to East Side Station, where it stayed until retirement in 1954.

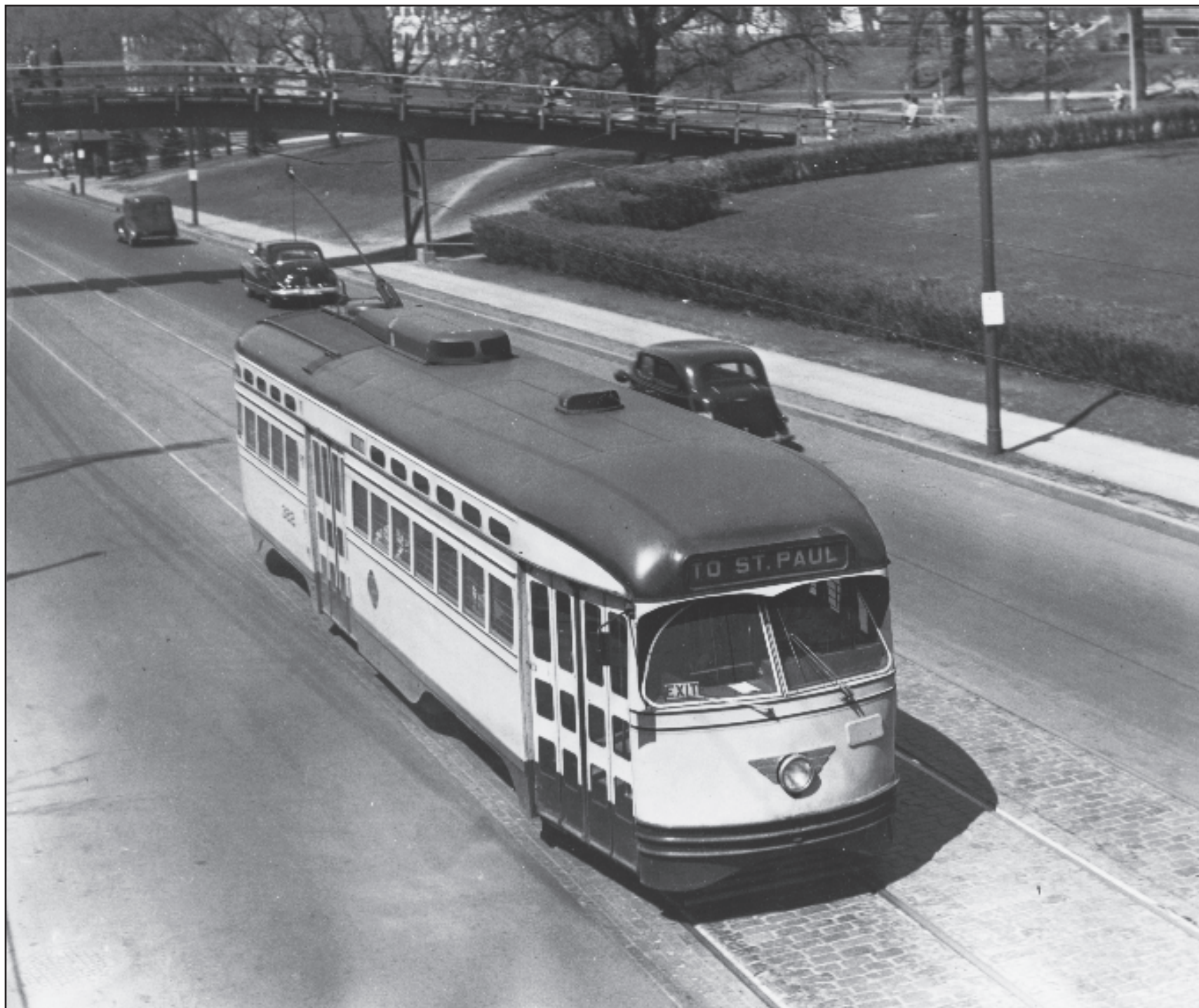
Car 1791 (Duluth 265)

It was built at Snelling Shops in 1915, and during its one year at TCRT was assigned to Snelling Station. Duluth needed more cars for the extension to the Morgan Park steel plant, so 1791 was sold in 1916 and renumbered 265.

PCC 322

Delivered by St. Louis Car Company during December 1946-January 1947, 322 was based at Snelling Station where it was assigned to the Interurban (St. Paul-Minneapolis via University Avenue). It and all the later PCCs were designed for 2-man operation with a conductor's station and farebox inside the rear door. It appears that this first group of PCCs retained the conductor station until sold to Newark, NJ.





PCC 322 spent its Twin City years on the Interurban, traveling between the downtowns via University Avenue and the University of Minnesota campus. Here it passes under the pedestrian bridges in front of Coffman Union.

Turning streetcars--and the Lake Harriet loop

Most streetcar systems had to decide if their streetcars would be predominantly single-ended or double ended. There are cost tradeoffs. Double-ended cars need no turning facilities at the end of the line, but require two full sets of operating controls per car and usually two trolley poles and retrievers. Single ended cars save on controls, but require turning facilities.

TCRT decided to be a single-ended system, with only one set of controls,

at least initially. To turn the cars, TCRT mostly used wyes, which fit easily into street intersections. The streetcar would pull across the intersection, back into a side street and pull forward onto the main street.

Loops had several advantages over wyes, but were only used when sufficient off-street land was available to fit them. A single track loop required one track switch, while a single track wye needed three switches. A double track loop needed no switches versus two for a double track wye. Since TCRT mostly ran in streets, in the mid-1930s there were 92 wyes at terminals and

only 14 loops.

Wyes required a backup move (loops don't), no problem when all streetcars still had conductors to guide the backing. Conductors were phased out on most lines during the early 1930s. That left motormen backing blindly from the front end. Inevitably they must have hit unseen obstacles or run over pedestrians, because a couple of years later TCRT installed backup controls on all its 1-man cars, an expense that couldn't have been welcome in the middle of the Great Depression.

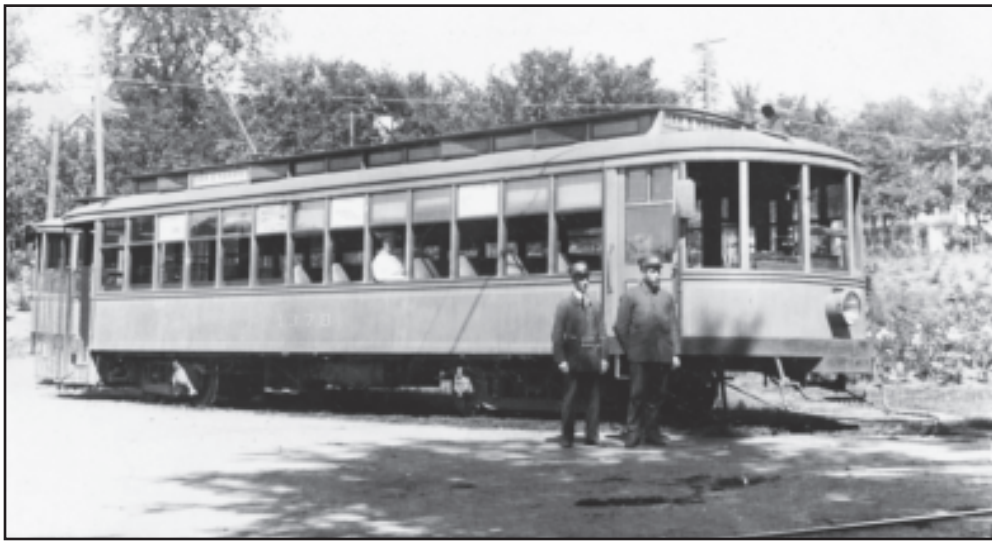
The Lake Harriet loop was located

just east of Upton Avenue, where the Lake Harriet line ended prior to 1905. That year it was extended to Lake Minnetonka, but the loop remained as a place to turn and stage lake extras. In 1920 a siding was added just west of Upton Avenue to stage cars for the 10 PM concert break in the summer.

The loop switches were removed in 1939, but the loop track itself remained in place until 1950. Today the area is occupied by apartments and their garages.



Linden Hills and the Lake Harriet loop about 1928 with the loop and right of way clearly visible. Note Lake Harriet and the Linden Hills Boulevard bridge at upper left. Upton Avenue cuts diagonally across the lower right edge. A streetcar can be seen just west of Upton at extreme right. Joe Quigley photo taken for the Minneapolis Public Schools.



Three views of the Lake Harriet loop. All are before 1920.

Above left: Two cars on the loop at once, implying extra service, perhaps on a Sunday.

Above right: We ran this one in the Currents newsletter. It shows the building that now houses the Wild Rumpus bookstore.

Left: No caption info available, but love the parasol. Hennepin County Library Special Collections.



These rather crude snapshots, probably from the 1930s, work their way around the loop from east to west.



Welded rails

Back when virtually all railroad rail came in 39-foot pieces and was bolted together with rail joints, TCRT used welded rail. It was really a necessity, because the tracks were mostly embedded in pavement. Bolted rail joints subjected to heavy traffic require

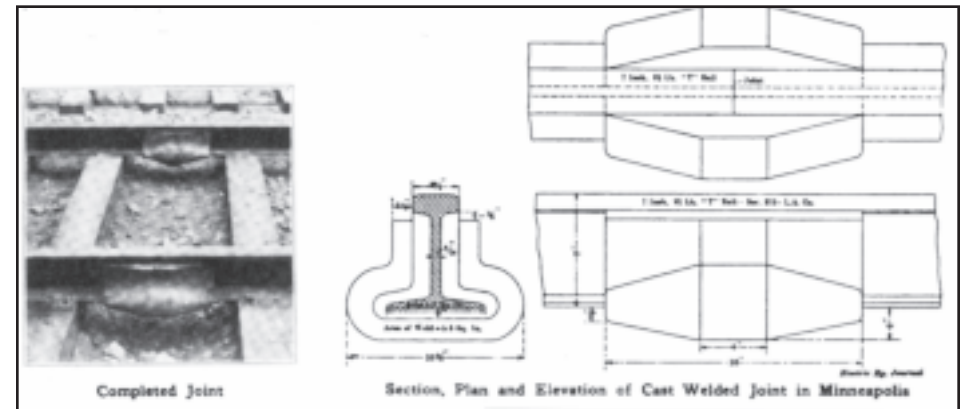
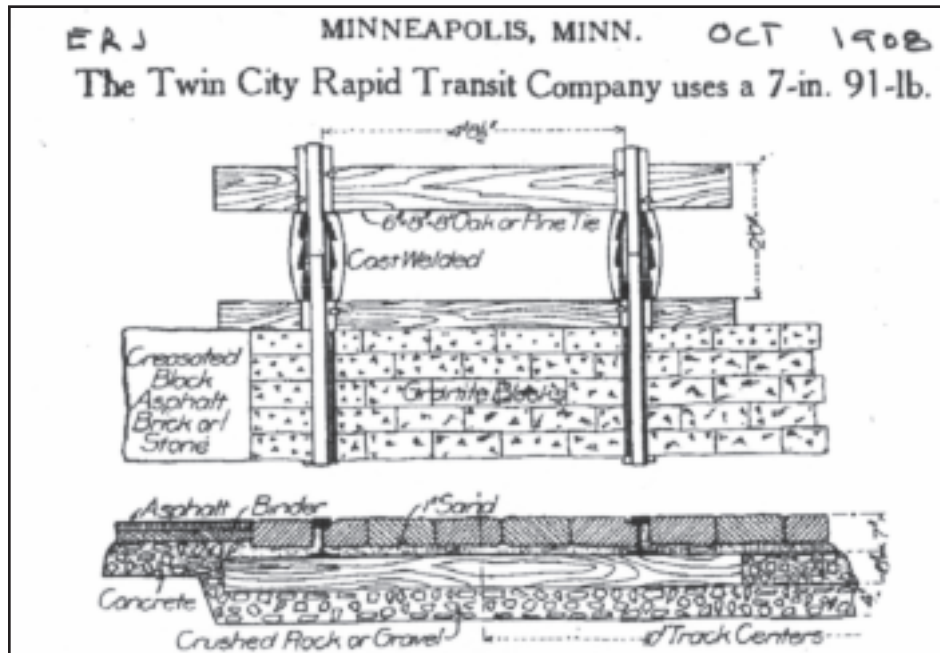
frequent maintenance. Digging up the pavement to get at the track and disrupting traffic were both undesirable. Also, the rails were part of the electrical circuit, carrying the negative current back to the powerhouse. Welding assured no breaks in the circuit.

According to materials pulled together by Russ Olson, welding is

first mentioned in 1897. By 1902, a national trade publication says that 30 percent of TCRT's rail joints were welded. beginning in 1920, all rail joints were welded.

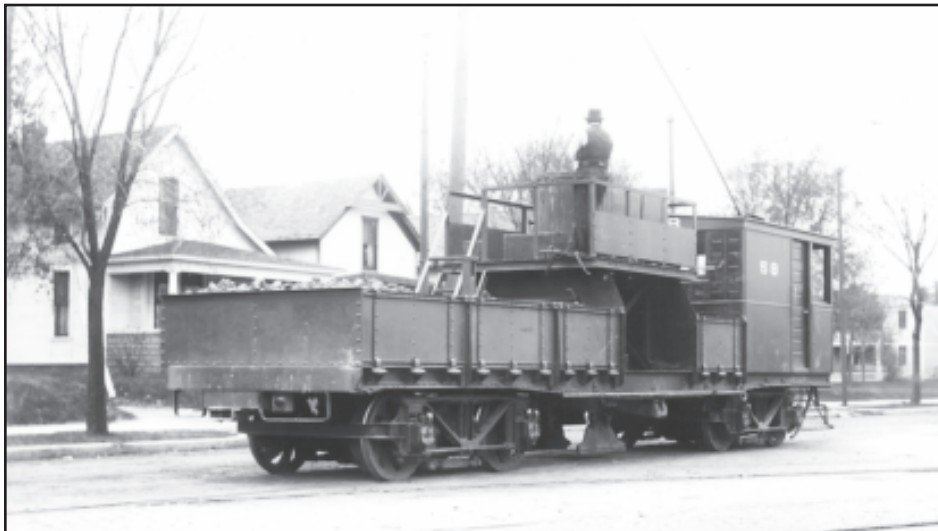
The process was called cast welding or thermite welding. A form was placed around the rail joint and molten metal poured into it. Originally the

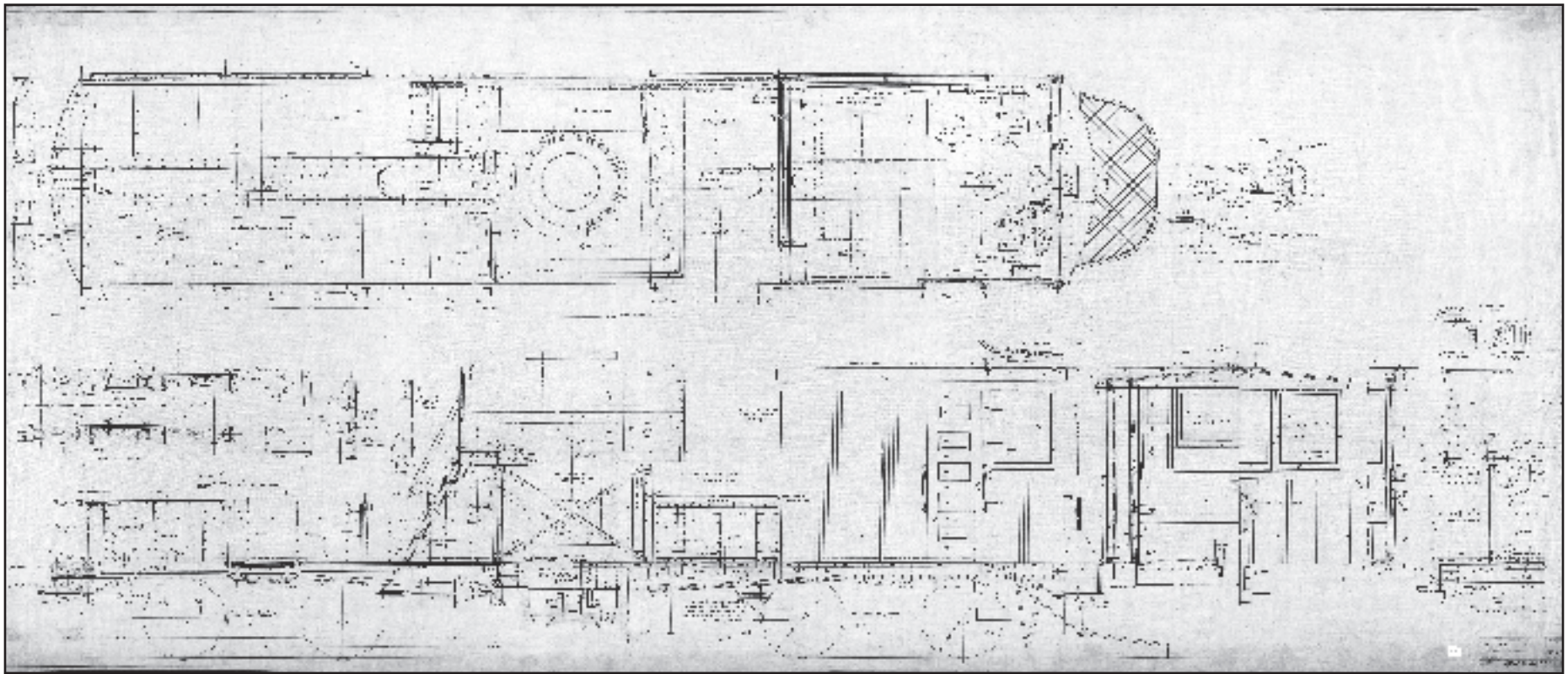
welding was performed by specially equipped work cars #58 and 61, built at Snelling Shops in 1914-15. They were replaced in 1925 by a group of welding trucks that had the advantage of being more mobile and less disruptive to streetcar service.



Thermite welded rail joints (also called cast welded) are described in the trade publication diagrams.

TCRT built cupola cars #58 and 61 to do the welding. they soon gave way to much more flexible welding trucks, shown on the next two pages.





Above: The construction plan for thermite welding cars 58 and 61. The rear "pickup bed" held coal to fuel the welder.

Left: A welding truck at work in 1927, looking east on University Avenue at Snelling Avenue. Note the single track crossing of the Snelling line and the tracks curving into Snelling Station, which commands the south curb.



A welding truck works at Seven Corners in St. Paul. The welder is powered directly from the overhead wire by a diagonal "stinger" reaching up from the truck's front.

Open cars

In the early years of Twin City streetcars, the Minneapolis Street Railway and the St. Paul City Railway ran both open and closed cars. Why they did it is unclear, given the severe winter climate. It might have been a requirement of the city franchises, or maybe it was just the fashion.

During the horse car era, the St. Paul horse car fleet consisted of 126 closed cars. However, the two St. Paul cable lines ran with all open grip cars pulling both open and closed trailers. In Minneapolis there were 240 closed horse cars and 62 open cars.

The practice continued after electrification and the consolidation of the two companies under TCRT in 1892. By 1898, there were a total of 250 open motor cars and 506 closed motor cars. To add capacity, former cable car and horse car open trailers were retained.

Most of the motors were single truck cars, enlarged versions of the horse cars. Some former horse cars were rebuilt as motor cars. Soon, however, the rapid increase in ridership mandated larger, double truck cars. TCRT, having merged the Minneapolis and St. Paul systems, purchased 55 open and 25 closed versions. These included rebuilding 14 former Motor Line narrow gauge trailers as open motors. These were pictured on the front and rear covers of the Fall 2017 issue.

Owning separate summer and winter fleets was expensive and inconvenient. To save money, TCRT switched power trucks between the fleets twice a year. Besides being labor intensive, the weather often failed to cooperate. Deploying the summer open fleet too early in the spring and too late in the fall exposed passengers to cold weather. The open cars had side curtains that could be pulled down for protection

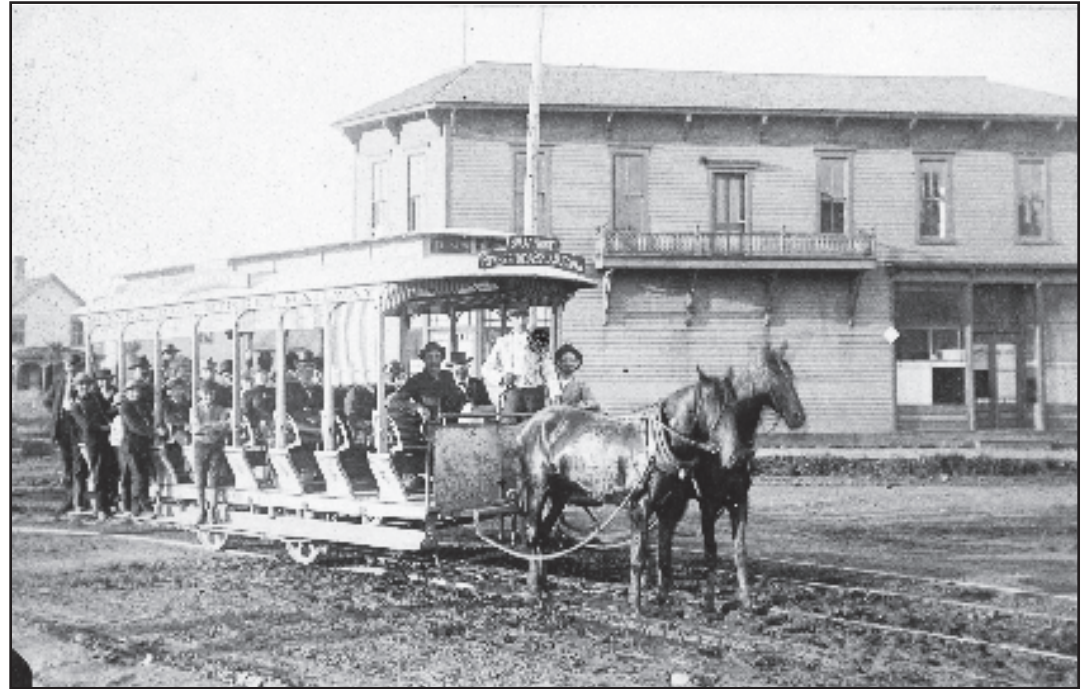
against rain, not the most desirable option.

Open cars were originally built for fast loading and unloading. Continuous steps running the length of the car on both sides allowed passengers to access every row of seats. Without center aisles, the cars were huge crowd swallows, and could carry dozens more on the running board steps.

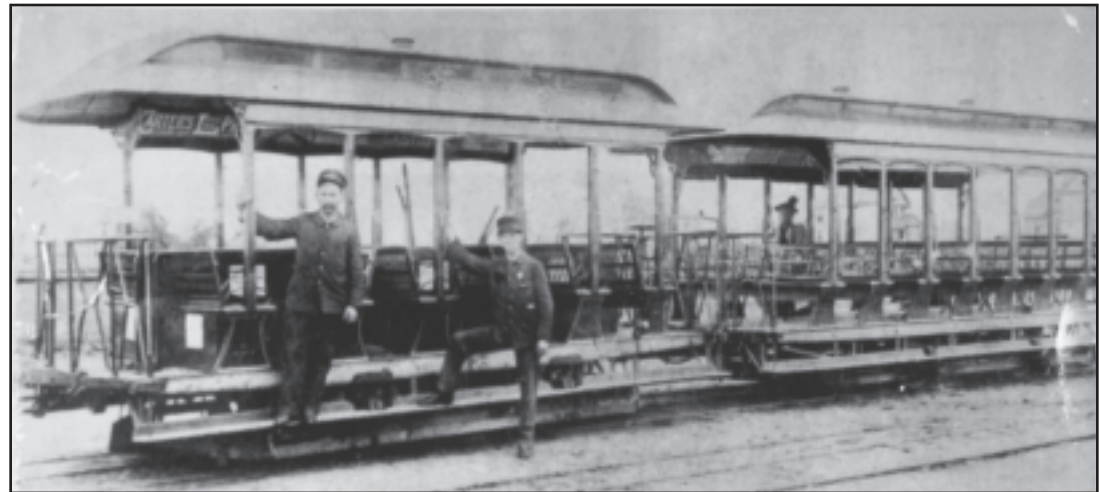
This arrangement created all sorts of opportunities for personal injuries boarding and alighting while the car was moving or getting sideswiped by other vehicles. The solution was a complete rebuild in 1896 that eliminated the side steps, enclosed the sides with wire mesh, cut a center aisle through the cross benches and channelled everyone through rear platform steps protected by wire gates.

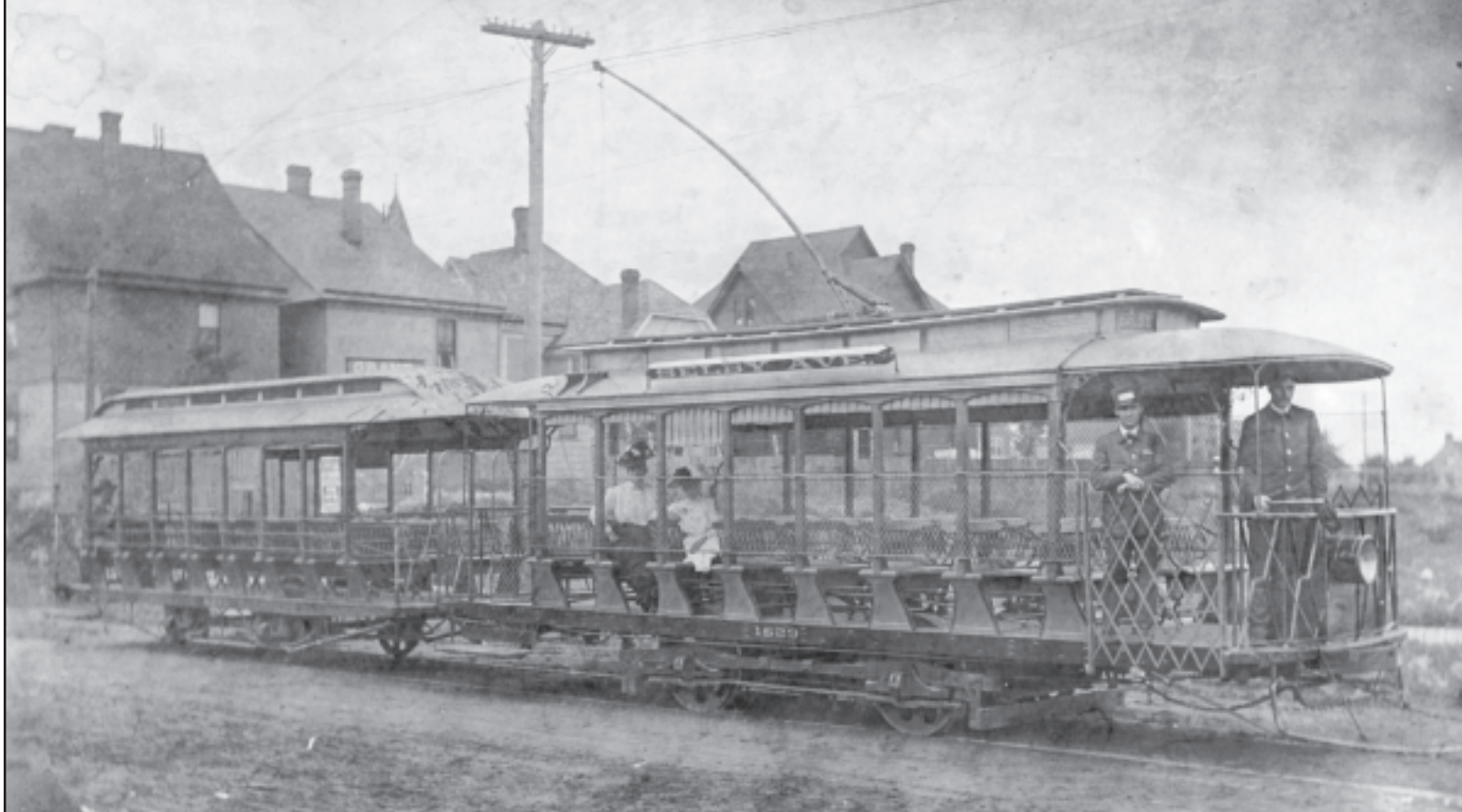
The open cars' days were numbered when TCRT in 1898 began to build home-designed "convertible" streetcars with large windows that opened for good summer ventilation, but were closed for the winter. It was a solution that made everyone happy and permitted phasing out the open cars.

All the single truck open cars were gone by 1905. TCRT kept, and actually rebuilt 35 of the double truck opens, equipping them with air brakes and front windshields. They lasted in service until about 1910. They were probably used as unscheduled extras during the summer, although photos of them are rare. The last ones were scrapped in 1913.



The Minneapolis Street Railway rostered open horse cars. The St. Paul City Railway didn't, but all its cable grip cars and half the cable trailers (seen below) were open. Quite a few of the cable trailers survived to be hauled behind single truck electric streetcars.

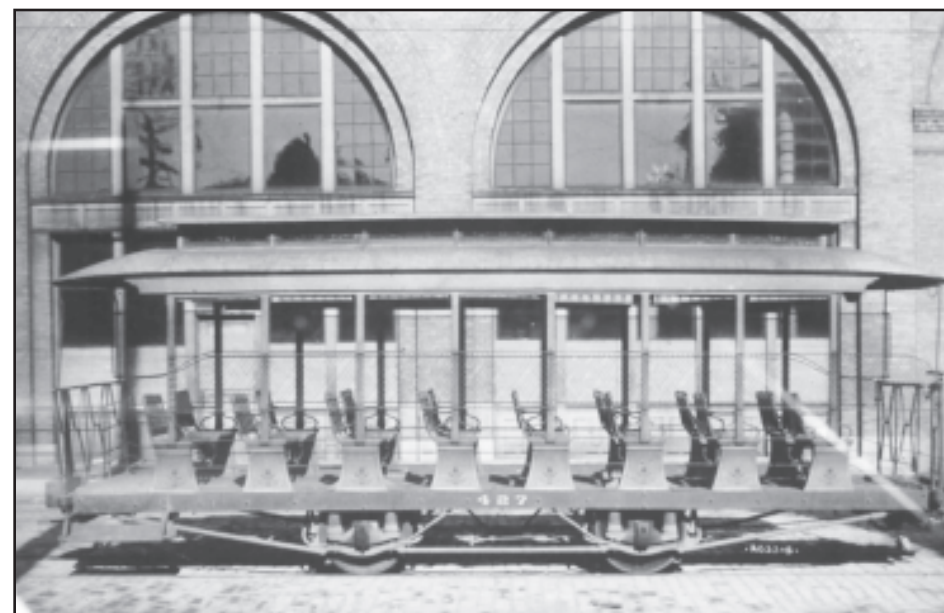


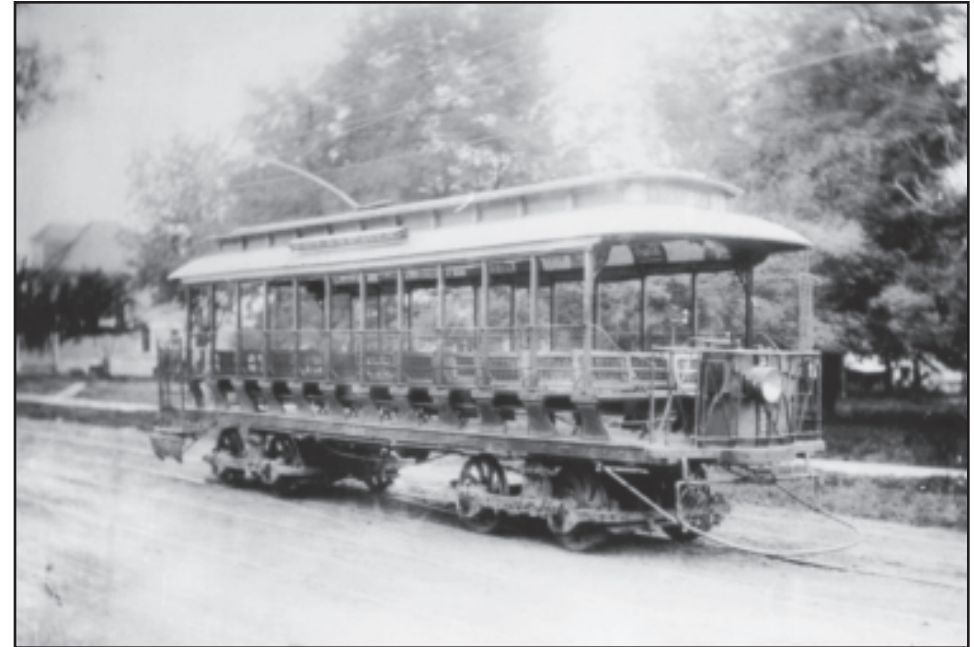
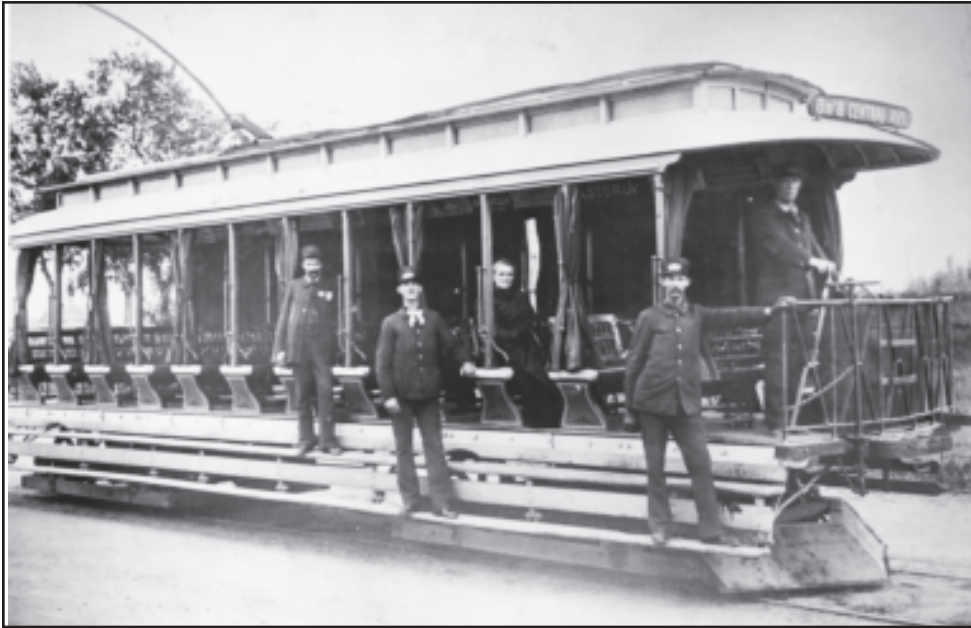


Left: Car 1629, built by American Car Company in 1893, pulls a cable trailer at Prior & University, the end of the Selby Line at that time.

Below left: Trailer 207 was a horsecar built by Pullman in 1888. Posed at East Side Station in 1904.

Below right: Car 427 was built in 1891 by Robinson & Moen (Northern Car Company of Robbinsdale) as a motor car. Converted to a trailer, it's pictured in 1904 in front of the offices/carbarn/power house on 3rd Avenue N. at 2nd Street.





The photos on this page track the evolution of the double truck opens.

Above left: The open cars as originally delivered with full length running boards and no center aisle.

Above right: In 1896 all of the double truck opens were modified with gates, center aisles, side screens, fenders and different destination signs, glass slides in front and rotating wood signs on the sides of the roof.

Below left: The final modifications included windshields, air brakes and canvas roller destination signs.

Opposite: Photos of the double truck open cars in service are rare. Here one heads west on Washington Avenue at 4th Avenue S. Note the original Milwaukee Road Depot at right.





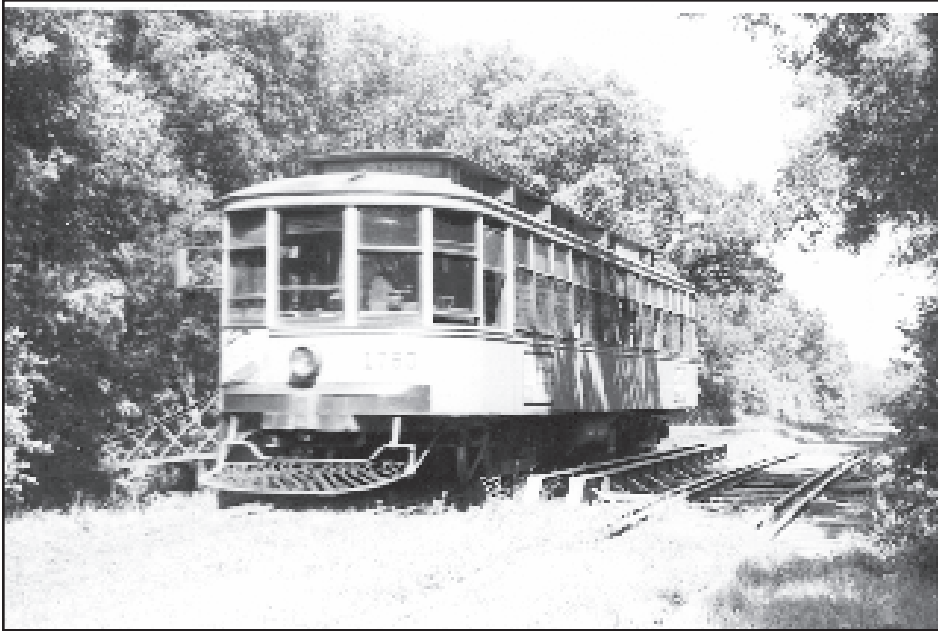
The largest of the open cars were #707-731, 40 footers built by American Car Company in 1893.

Como-Harriet remnants

If you know where to look, there are remnants of Twin City streetcars hiding in plain sight. Sometimes it's a former car barn or substation, sometimes a piece of right of way, sometimes just some overhead wire hangers that somehow survived. Here are some examples. We'll show more in future issues.

Como Park is the biggest concentration of remnants. Lexington Avenue still crosses the right of way on a bridge. Just east of Lexington is the Como Park station and the recently restored pedestrian bridge that once spanned the tracks. Next to the right of way is the a short TCRT overhead wire pole with ornamental cap intact. It used to support a pulloff and has been moved about 100 feet west of its original location at the curve.





The Como Park streetcar right of way is now a bike trail. A couple of blocks west of Lexington Avenue it crosses what used to be a street called Beulah Lane. A new bridge, labelled "Como-Harriet Streetcar Line", has been built on the old abutments.



A streetcar stop survives on the east side of Bde Mka Ska (Lake Calhoun) at Coniaris Way, formerly 35th Street. The right of way from 34th to 36th Street is now a walking path.

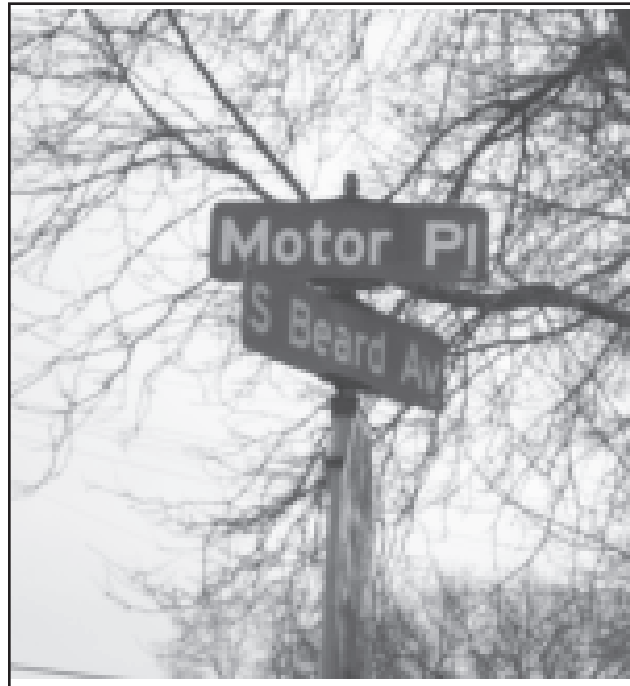




As part of the City Beautiful movement in the 1920s, TCRT removed many of its overhead wire poles from downtown sidewalks and attached the span wires to adjacent buildings. The photo at left shows Hennepin Avenue at 8th Street in the 1930s. Look carefully and you can see the eyebolts for both streets near the top of the building's corner column. (Lower left: The modern photo shows both eyebolts still in place. Others are visible all over both downtowns.

Two small streets were named for the Como-Harriet's narrow gauge, steam powered predecessor, the Minneapolis, Lyndale & Minnetonka, better known as the Motor Line, which last passed by them in 1886.

Motor Street is located in Edina just beyond the 44th Street bridge over Minnehaha Creek.







This picture appears for two reasons:

1. It's State Fair time, the traditional high point of the year for both Twin City Rapid Transit and successor Metro Transit. The streetcar terminal extended well into the fairgrounds, reaching the base of the Grandstand ramp.

Visit the current bus terminal and watch fairgoers enter under the iconic restored streetcar arch.

2. Taken in 1912, this is the first known photo of car 1267, clearly visible at the left edge of the photo. Based at Nicollet Station, it's sitting in the Minneapolis yard.



Car 1267 was assigned to the Inter-Campus line from 1948 until 1953. Here it is on the Minneapolis campus loop.



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August 2021

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